



First imported case of 2019 novel coronavirus in Canada, presenting as mild pneumonia

William Kyle Silverstein, Lynfa Stroud, Graham Edward Cleghorn, Jerome Allen Leis

A 56-year-old man presented to our Emergency Department in Toronto, ON, Canada, with fever and non-productive cough, 1 day after returning from a 3-month visit to Wuhan, China. Given this travel history, the transferring ambulance and receiving hospital personnel used appropriate personal protective equipment. He had a medical history of well controlled hypertension. On examination, his maximum temperature was 38·6°C, oxygen saturation was 97% on room air, and respiratory rate was 22 breaths per min—without any signs of respiratory distress. Laboratory investigations showed mild thrombocytopenia (113×10^9 per L, normal 150–400), haemoglobin concentration 146 g/L (normal 130–180), white blood cell count 7.4×10^9 per L (normal 4–11), creatinine concentration 81 $\mu\text{mol/L}$, alanine aminotransferase 29 IU/L (normal <40), and lactate concentration 1·1 mmol/L (normal 0·5–2·0). A chest x-ray showed patchy bilateral, peribronchovascular, ill-defined opacities in all lung zones.

Considering the clinical presentation of viral pneumonia in a patient with the appropriate epidemiological risk, the patient was admitted as a probable case of 2019 novel coronavirus (2019-nCoV) infection. The public health authority was notified of the case on admission and it traced the contacts. Mid-turbinate swabs were negative for influenza virus A and influenza virus B, parainfluenza virus, respiratory syncytial virus, adenovirus, and human metapneumovirus. Coronavirus was detected in both mid-turbinate and throat swabs by PCR and confirmed as 2019-nCoV by sequencing. 1 day after admission to hospital, the patient developed mild haemoptysis

and significant rhinorrhoea, but he remained otherwise well. His intermittent fever lasted 5 days before fully resolving, and his platelet count normalised; he was discharged home and followed up by public health workers.

We believe this is the first confirmed case of 2019-nCoV in Canada. The presentation with fever, cough, and bilateral pneumonia is typical of most cases described so far. However, only a minority of previously reported cases had thrombocytopenia—and this was a worrying feature in our patient. Yet despite significant radiographic abnormalities, our patient remained well and did not require intubation or supplemental oxygen—unlike many cases with similar x-ray findings reported so far. This case highlights the milder spectrum of pneumonia caused by 2019-nCoV. Further, it suggests that the identification of individuals—like our patient—who could be managed by being quarantined at home, rather than in hospital, might be an important strategy for containing this outbreak.

Contributors

All authors were involved in the diagnosis, management, and care of the patient. All authors contributed equally to writing the manuscript. Written consent for publication was obtained from the patient.

Acknowledgments

We would like to thank the nursing staff involved in this patient's care, Infection Prevention and Control team members, as well as Anastasia Oikonomou, Manpreet Basuita, Shubhabrata Das, and Zachary Feilchenfeld

© 2020 Elsevier Ltd. All rights reserved.

Published Online
February 13, 2020
[https://doi.org/10.1016/S0140-6736\(20\)30370-6](https://doi.org/10.1016/S0140-6736(20)30370-6)

Department of Medicine, University of Toronto, Toronto, ON, Canada (W K Silverstein MD, L Stroud FRCPC, G E Cleghorn FRCPC, J A Leis FRCPC); Division of General Internal Medicine, Sunnybrook Health Sciences Centre, Toronto, ON, Canada (L Stroud, J A Leis); Division of Emergency Medicine, Sunnybrook Health Sciences Centre, Toronto, ON, Canada (G E Cleghorn); and Division of Infectious Diseases, Sunnybrook Health Sciences Centre, Toronto, ON, Canada (J A Leis)

Correspondence to:
Dr Jerome A Leis,
Divisions of General Internal
Medicine and Infectious
Diseases, Sunnybrook Health
Sciences Centre, Toronto,
ON M2T 4T6, Canada
jerome.leis@sunnybrook.ca



Figure: First case of 2019 novel coronavirus in Canada
Chest x-ray shows bilateral peribronchovascular, ill-defined opacities in all lung zones.